

**Notice of Allowability**

Application No.

10/736,357

Applicant(s)

MICHELS ET AL.

Examiner

Olga Asinovsky

Art Unit

1711

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/22/2005.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The claimed invention is a thermoplastic molding composition comprising a graft polymer that contains: (a) a continuous phase containing the polymerized product of at least one vinylaromatic monomer and at least one ethylenically unsaturated nitrile monomer, and (b) a dispersed phase containing ethylene/alpha-olefin rubber that is grafted with the polymerization product of at least one vinylaromatic monomer and at least one ethylenically unsaturated nitrile monomer, wherein the weight average molecular weight of the continuous phase is 130,000 to 275,000g/mol and where the dispersed phase is characterized in that its weight average particle size is less than 0.90 microns, its degree of grafting is 0.25 to 0.65, the ratio of the gel value measured in THF to gel value measured in acetone is less than 0.1 and the Tg of the ethylene/alpha-olefin rubber is less than minus 50C.

2. The prior art of record are Shimokawa et al U.S. Patent 4,314,041 and Shimokawa et al U.S. Patent 4,268,638. Both references disclose a rubber-modified thermoplastic resin comprising a dispersed rubber phase of EPDM that is grafted with an aromatic vinyl compound and a vinyl cyanide compound. However, the degree of grafting is higher than in the present claims. Shimokawa' 041 discloses the degree of grafting in the working examples for being 62 to 73. Shimokawa'638 discloses a degree of grafting of not less than 70 and in the Table 1 in the working examples the grafting degree for being 80% or higher. Shimokawa'041 does not disclose a gel value for the rubber component. Shimokawa'638 discloses a gelation value of 1.0% to 2.5% or higher

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to 4.8, whereas the present claims require a gel value of less than 0.1. There is no motivation to combine the teachings of these two references for obtaining the desired gelation value of the rubber component since none discloses the claimed gel value and the claimed grafting degree. Also, none of these references discloses the average molecular weight of the continuous phase for being 130,000 to 275,000g/mole.

Claims 1-7 and 9-10 are deemed to contain allowable subject matter.

3. The rejection of claim 8 (correction) under 35 U.S.C. 103(a) over Shimokawa et al '4,314,041 in view of Shimokawa et al '4,268,638 as applied to claims 1-7 and 9-10, and further in view of Ishida et al U.S. Patent 5,306,778 is withdrawn in light of the allowable claims 1-7 and 9-10 and since Ishida does not disclose the specified physical characteristic of the rubber requiring in the present claims. There is no motivation to employ the addition resin in Ishida invention to modify the rubber-modified thermoplastic resin of the primary references invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



December 02, 2005

Olga Asinovsky  
Examiner  
Art Unit 1711



James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700